Project Title: **Streamgaging in the Clarksburg Special Protection Area of Montgomery County, Maryland**

Start Date: January 2004

End Date: Ongoing

Partners: U.S. Environmental Protection Agency (USEPA) and the Montgomery County Department of Environmental Protection (DEP)

Project Chief: Matt Baker, Frostburg, MD

Background: Montgomery County, Maryland has designated the Clarksburg region as a Special Protection Area (SPA) within the county. An SPA is an area of the county that has high quality or unusually sensitive water resources or environmental features, and those resources or features would be threatened or degraded unless special measures are taken to protect them. As a result, development of an SPA within Montgomery County requires that special guidelines be followed to reduce threats to water resources and environmental features.

In the early 2000s, plans to initiate development in the Clarksburg watersheds emphasized a need to improve stream gage coverage in the area, in order to monitor current hydrologic conditions, and changes in hydrology over time as the area is developed. In early 2004, the U.S. Geological Survey, the U.S. Environmental Protection Agency, and Montgomery County Department of Environmental Protection began collaborating on a network of five stream gages to better define the surface water hydrology of the small watersheds that comprise the Clarksburg region.

Looking downstream at channel from location of station 01644371, Little Seneca Creek tributary near Clarkburg, MD, prior to development of the floodplain area.

Looking downstream at channel in vicinity of station 01644371, Little Seneca Creek tributary near Clarkburg, MD as development proceeds in the watershed.

Objectives: The goal of the network is to investigate the changes in surface-water hydrology in the Clarksburg SPA over time, as a result of urbanization.

Approach: The network consists of five continuous record stream gages:

Station 01643395, Soper Branch at Hyattstown, MD

Station 01644371, Little Seneca Creek Tributary near Clarksburg, MD

Station 01644372, Little Seneca Creek Tributary at Brink, MD

Station 01644375, Little Seneca Creek Tributary near Germantown, MD

Station 01644380, Cabin Branch near Boyds, MD

The watersheds range in drainage area from 0.37 to 1.35 square miles. Soper Branch at Hyattstown is considered a forested reference watershed. Little Seneca Creek Tributary near Germantown is considered a reference watershed for developed conditions under previous storm water management regulations. The other three watersheds are considered "test" watersheds, where development is taking place during the period of continuous record.

Results: Streamflow data from the five stream gages in the Clarksburg network can be found at the USGS Instantaneous Data Archive (http://ida.water.usgs.gov/ida/), or on the USGS MD-DE-DC Water Science Center real-time streamflow data page at the following link:

http://waterdata.usgs.gov/md/nwis/current/?type=flow&group_key=basin_cd